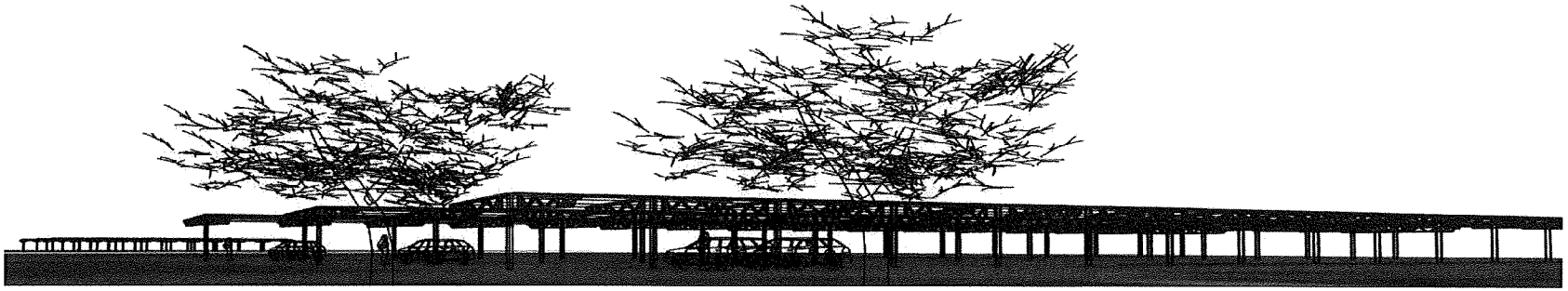
Structural Solar L.L.C.
EFFICIENT STRUCTURAL SOLUTIONS

Renderings, Sketches and Information prepared for:

Solar Canopy Project

OFF STREET PARKING LOT

BOLTON STREET
NEW BEDFORD, MASSACHUSETTS



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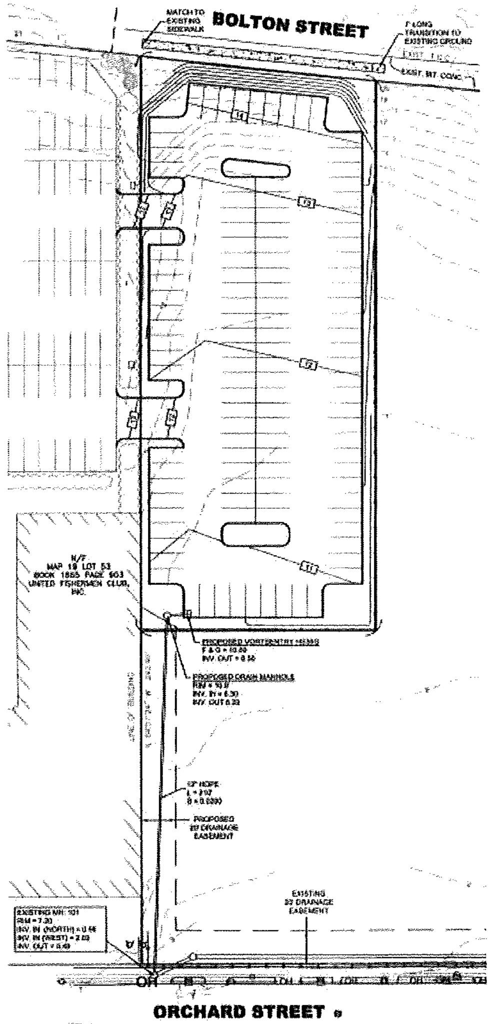
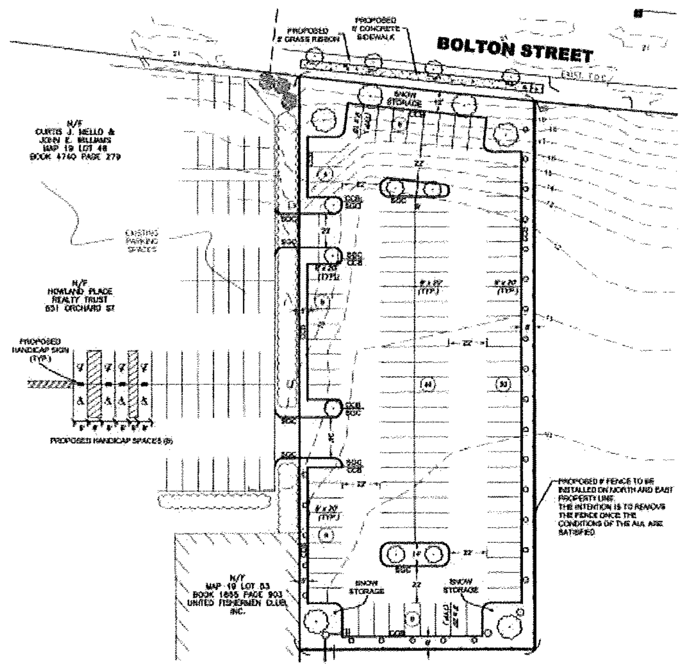


GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'



PROPOSED PARKING LAYOUT PLAN

SCALE: 1" = 30'

NOTES:

1. THERE ARE 131 PARKING SPACES IN THE EXISTING PARKING LOT AT HOWLAND PLACE. THERE ARE 116 PARKING SPACES PROPOSED FOR A TOTAL OF 247 PARKING SPACES. SEVEN HANDICAP SPACES ARE REQUIRED. EIGHT HANDICAP SPACES ARE PROPOSED.
2. THE CONTRACTOR SHALL OBTAIN A STREET DISTURBANCE AND OBSTRUCTION PERMIT PRIOR TO ANY CONSTRUCTION WITHIN THE RIGHT-OF-WAY.
3. DEVELOPER AND SITE CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE DEPARTMENT OF PUBLIC INFRASTRUCTURE PRIOR TO THE START OF CONSTRUCTION.
4. ANY MINOR MODIFICATION (AS DETERMINED BY THE CITY ENGINEER AND CITY PLANNER) TO THE INFORMATION SHOWN ON THE APPROVED SITE PLANS SHALL BE SUBMITTED TO THE CITY ENGINEER AS A MINOR PLAN REVISION FOR APPROVAL PRIOR TO THE WORK BEING PERFORMED.
5. ANY WORK AND MATERIAL WITHIN THE CITY RIGHT-OF-WAY SHALL CONFORM TO THE CITY OF NEW BEDFORD REQUIREMENTS.
6. ALL HANDICAP PARKING, RAMPS, AND ACCESS SHALL CONFORM TO AAB & MAAB REQUIREMENTS.
7. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION. (REFER TO EROSION CONTROL PLAN)
8. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO MUTCD REQUIREMENTS.
9. THE TOTAL PROPOSED OFF STREET PARKING AREA IS 44,045 ± S.F.
10. DRIVEWAY PERMITS ARE SUBJECT TO TRAFFIC COMMISSION APPROVAL.
11. DRIVEWAYS TO BE BUILT IN ACCORDANCE WITH CITY OF NEW BEDFORD REGULATIONS AND WITH 4 FOOT TRANSITION CURB ON BOTH SIDES (NO CURB AND NO WHEELCHAIR RAMPS WITHIN CITY OF NEW BEDFORD LAYOUT)
12. PERMITS FOR SIDEWALK, DRIVEWAY AND STORM DRAIN MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC INFRASTRUCTURE ENGINEERING DIVISION.
13. DRAINAGE DESIGN MUST COMPLY WITH PHASE II MASS. DEPARTMENT STORM WATER MANAGEMENT STANDARDS.
14. ALL UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF NEW BEDFORD STANDARDS.
15. OWNER TO SUPPLY PROOF OF RECORDING LOT FOR PROPOSED PROJECT.
16. AN EASEMENT RECORDED FOR THE PROPOSED EAST-WEST STORM WATER LINE. THE OWNER MUST PROVIDE THE CITY WITH PROOF OF THE NORTH-SOUTH UTILITY EASEMENT BEING RECORDED.
17. THE DEPARTMENT OF PUBLIC INFRASTRUCTURE REQUIRES A FINAL SET OF APPROVAL PLANS TO BE SUBMITTED THAT REFLECTS ALL REVISIONS MADE PRIOR TO THE START OF CONSTRUCTION.
18. UPON COMPLETION, ENGINEER MUST SUBMIT "AS BUILT DRAWINGS" IN CADD FORMAT PRIOR TO THE CERTIFICATE OF OCCUPANCY BEING ISSUED.

LEGEND

CCB - CAPE COD BERM
SGC - SLOPED GRANITE CURB

GRADING AND DRAINAGE / LAYOUT PLAN

ORCHARD STREET
NEW BEDFORD, MASSACHUSETTS

HOWLAND PLACE REALTY TRUST
NEW BEDFORD, MASSACHUSETTS

SCALE: 1" = 30'

DATE: AUG 25, 2017

LAYOUT REVISIONS

CITY PLANNING BOARD COMMENTS

CIVIL ENGINEERING · LAND SURVEYING

SHEET NO. GD-1

Structural Solar L.L.C.

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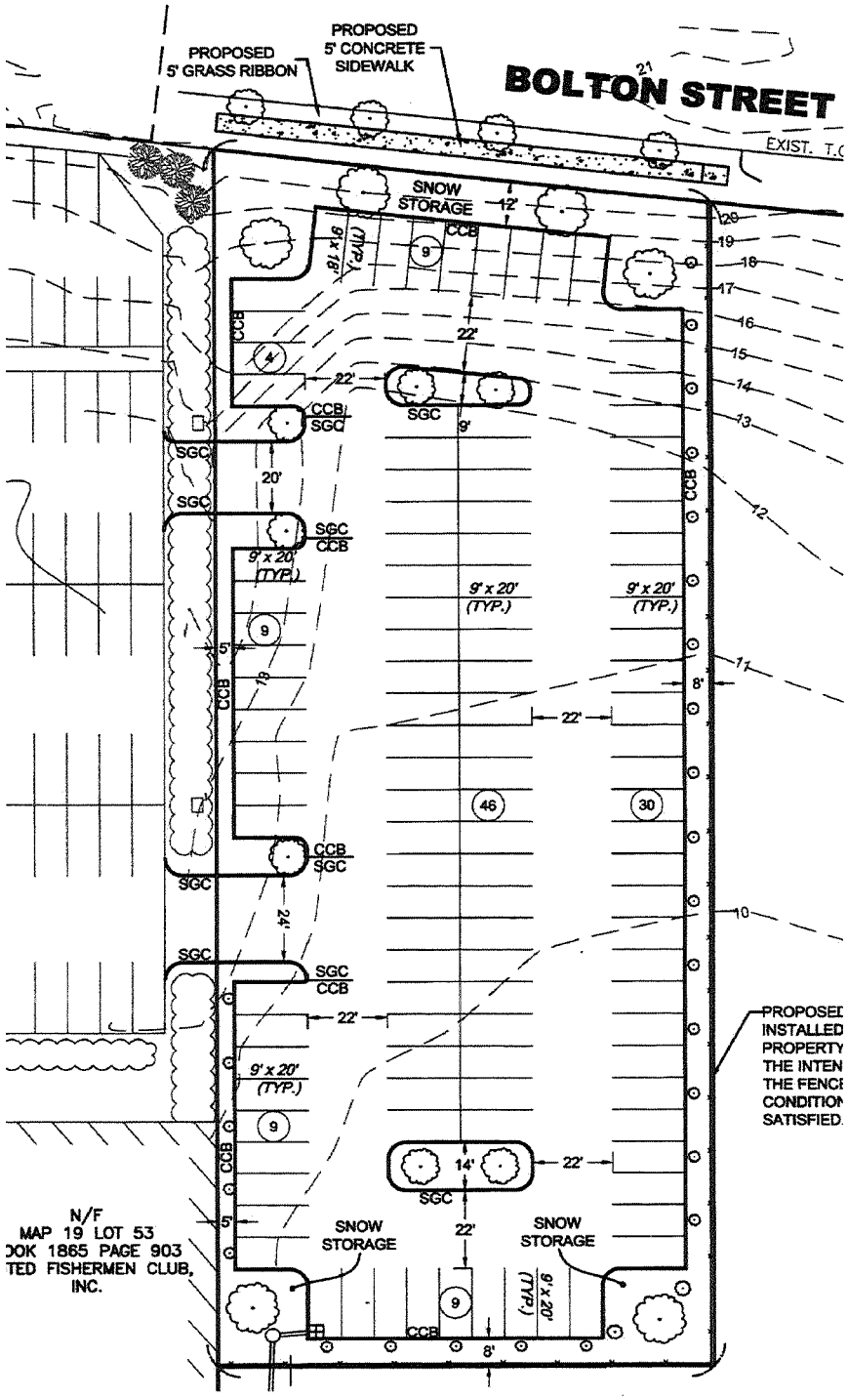
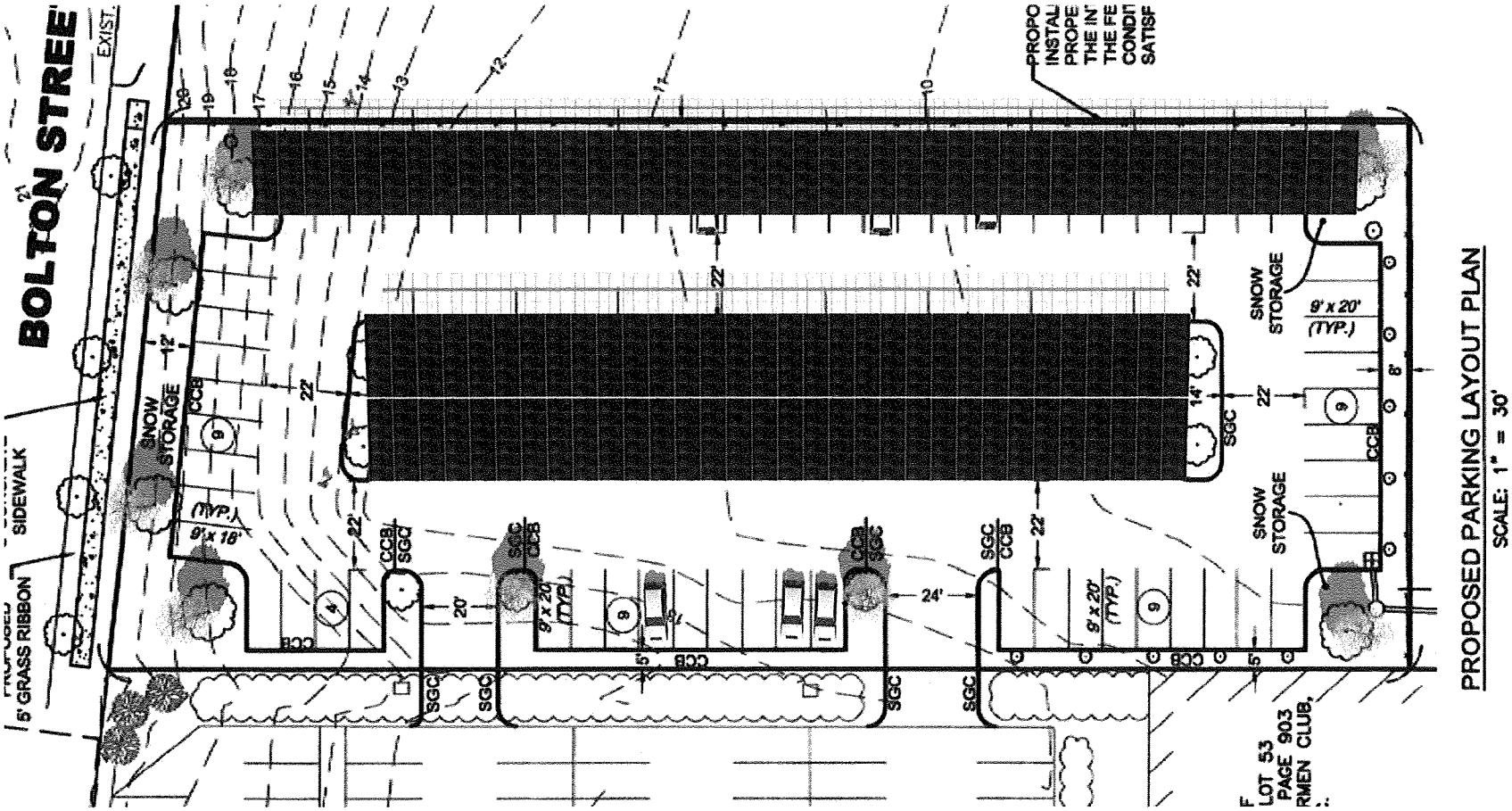


PROPOSED PARKING LAYOUT PLAN

SCALE: 1" = 30'

N

					DRA
					PRO

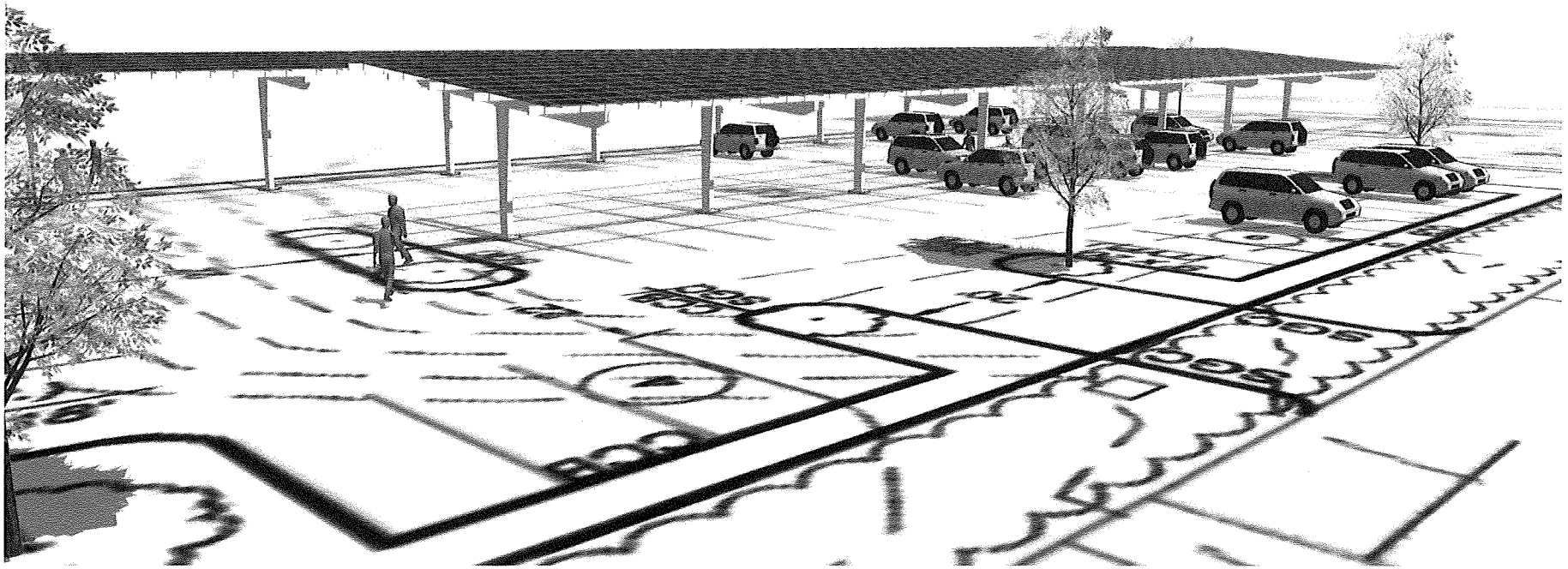


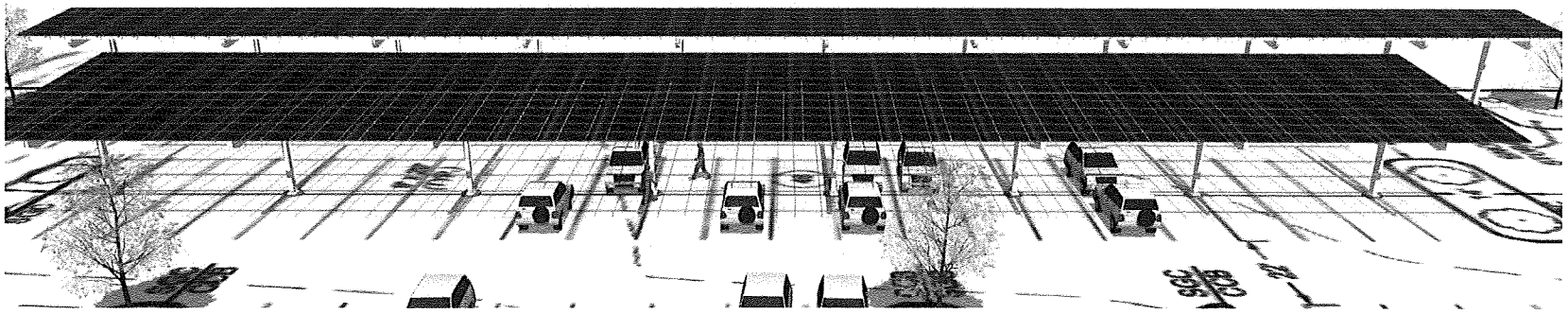
PROPOSED PARKING LAYOUT PLAN

SCALE: 1" = 30'

Single Slope Solar Canopies with 10' Clearance provide for 642 (72-cell) Solar Modules
Modules are in Landscape Orientation

Structural Solar L.L.C.





Structural Solar L.L.C.

Structural Solar L.L.C.

Project: TB-80-2225
Bolton St. Off-Street Parking Lot
651 Orchard St.
New Bedford, MA 02740
Kevin Welch
Howland Place, LLC.
283 Sawyer St.
New Bedford, MA 02746
(508)999-7368

To Whom it May Concern,

The following is a complete list of all service and Photovoltaic related electrical equipment we will be installing for the new parking lot.

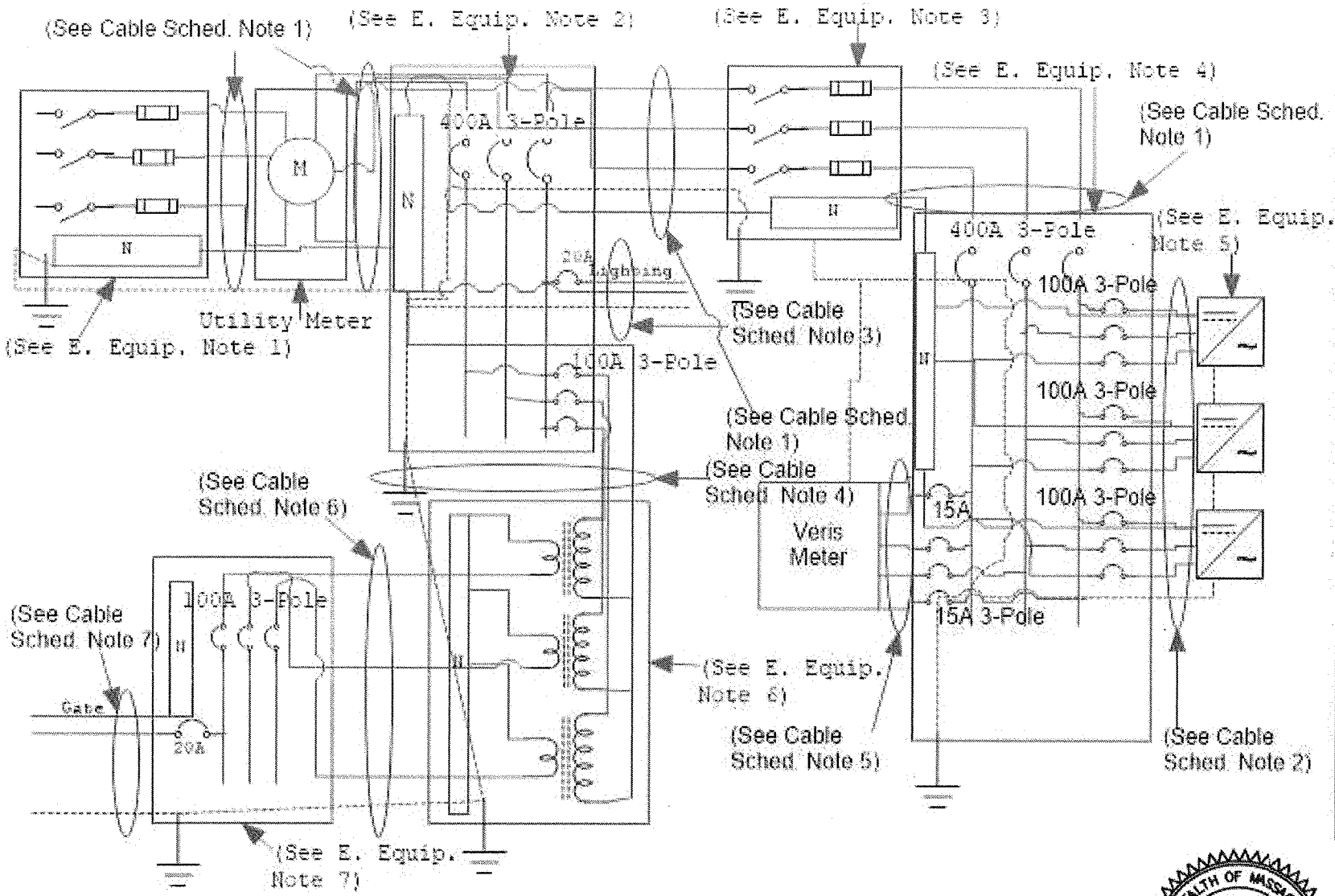
1) 400A 480/277VAC 3-phase Utility disconnect
2) 400A 480/277VAC 3-phase Utility meter socket
3) 400A 480/277VAC 3-phase Main Breaker distribution panel 20 circuit
4) 400A 480/277VAC 3-phase Photovoltaic AC disconnect
5) 400A 480/277VAC 3-phase Photovoltaic AC combiner panel 20 circuit
6) (x3) Solectria 60TL 480/277VAC 3-phase commercial inverter
7) Veris Meter with CT's for monitoring
8) 100A 3-phase transformer Primary-480/277VAC, Secondary- 120/240VAC
9) 100A 120/240VAC 3-phase Main breaker sub panel
10) Hyundai HiS-S340RI 340W 72-cell solar panel (653ct.)

I have also attached all necessary spec sheets for all listed equipment. If there is anything else required to meet the requirements please let me know as soon as possible.

Thank you,

Christina Bowen

Project Manager



Electrical Equipment

Note 1) New lockable Utility disconnect 400A, 480/277VAC, 3-phase, fused. Fed undgrd from new dedicated utility pad mount trnsformer.
Note 2) New 400A, 480/277VAC, 3-Phase, Main breaker distribution panel
Note 3) Photovoltaic AC disconnect 400A, 480/277VAC, 3-phase, fused. Provided with visible, lockable blades accessible to the utility 24/7.
Note 4) Photovoltaic AC main breaker combiner panel 400A, 480/277VAC, 3-phase
Note 5) (x3) Solectria 60TL commercial inverters, 100A 480/277VAC 3-phase
Note 6) 100A 3-Phase transformer 480/277VAC primary-120/240VAC secondary, rated 45kva
Note 7) 100A 120/240VAC 3-Phase main breaker subpanel

Cable Schedule	
	Note 1) 4" PVC schedule 40 (x4) 500MCM Copper (x1) 1/0 Copper-EGC
	Note 2) Underground 2 1/2" PVC schedule 80 (x12) #2AWG copper and (x3) #3AWG copper-EGC
	Note 3) Underground 1 1/2" PVC schedule 80 (x2) #8AWG copper, (x1) #8AWG copper-EGC
	Note 4) 1 1/4" PVC schedule 40 (x4) #3AWG copper, (x1) #6AWG copper-EGC
	Note 5) 1" PVC schedule 40 (x6) #10AWG, copper, (x1) #10AWG copper-EGC
	Note 6) 1 1/2" PVC schedule 40 (x4) 1/0 copper, (x1) #6AWG copper- EGC
	Note 7) Underground 1" PVC schedule 80 (x3) #8AWG copper, (x1) #8 copper-EGC

COMMONWEALTH OF MASSACHUSETTS
DAVID J. COLOMBO
ELECTRICAL
No. 40426
REGISTERED PROFESSIONAL ENGINEER

10-09-2018

Developer: Howland Place, LLC Project: Bolton Street Parking Lot	Drawn by: Christina Bowen Date:9/25/2018 Last Revised:10/08/2018	Electrical One-Line Diagram New Parking Lot Service 400A 3-Phase 480/277V New PV System 180KWAC (231.12KWDC)

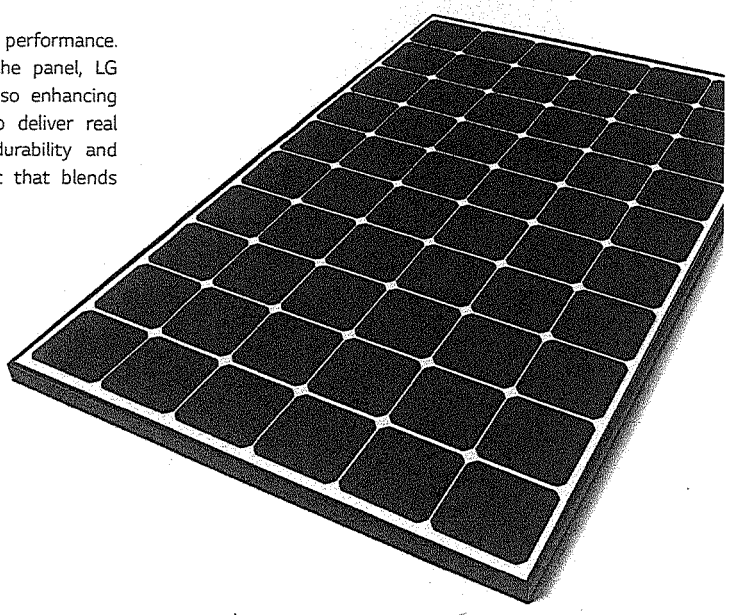
LG NeON® R

LG365Q1C-A5 | LG360Q1C-A5 | LG355Q1C-A5 | LG350Q1C-A5

60

365W | 360W | 355W | 350W

LG NeON® R is powerful new solar product with world-class performance. Employing a new electrode-free cell structure on the front of the panel, LG NeON® R maximizes the utilization of the available light while also enhancing reliability. LG NeON® R demonstrates LG's ongoing dedication to deliver real value: It combines an industry-leading warranty with superior durability and performance under real-world conditions, plus a modern aesthetic that blends seamlessly with virtually any roof.



Features

25-Year Warranty

LG offers the longest warranty in the industry, covering the NeON® R for 25 years. At that time, the panel is guaranteed to deliver at least 87% of its original performance.

High Power Output

Expertly engineered for enhanced power output, the LG NeON® R assures exceptional results even in more compact installations with reduced surface area.

Roof-Friendly Design

LG NeON® R has been designed with curb appeal in mind. By removing the electrodes from the visible side, LG has created a cleaner look that won't detract from the beauty of your home.

Outstanding Durability

With its newly reinforced frame, LG NeON® R can handle an impressive front load of up to 6,000 Pa and a rear load up to 5,400 Pa.

Better Performance on Sunny Days

The panel now offers an improved temperature coefficient, so it works more efficiently than before even on hot, sunny days.

About LG Electronics

LG is a global icon of excellence in electronics, with top market share in a variety of product categories. The company began its solar research and development in 1985, supported by LG's vast experience in the semiconductor, LCD and chemical industries. In 2010, LG Solar released its first series, the MonoX®, to great success, now available in 32 countries. The NeON® (previously known as MonoX® NeON), NeON® 2 and NeON® 2 BiFacial won the Intersolar AWARD in 2013, 2015 and 2016, demonstrating LG Solar's continuing commitment to innovation.

LG NeON® R

LG365Q1C-A5 | LG360Q1C-A5 | LG355Q1C-A5 | LG350Q1C-A5

Mechanical Properties

Cells	6 x 10
Cell Vendor	LG
Cell Type	Monocrystalline / N-type
Cell Dimensions	161.7 x 161.7 mm / 6 inches
Dimensions (L x W x H)	1,700 x 1,016 x 40 mm
	66.93 x 40.0 x 1.57 in
Front Load	6,000Pa / 125 psf
Rear Load	5,400Pa / 113 psf
Weight	18.5 kg / 40.79 lb
Connector Type	MC4 (MC), 05-8 (Renhe)
Junction Box	IP68 with 3 Bypass Diodes
Cables	1,000 mm x 2 ea / 39.37 in x 2 ea
Glass	High Transmission Tempered Glass
Frame	Anodized Aluminium

Certifications and Warranty

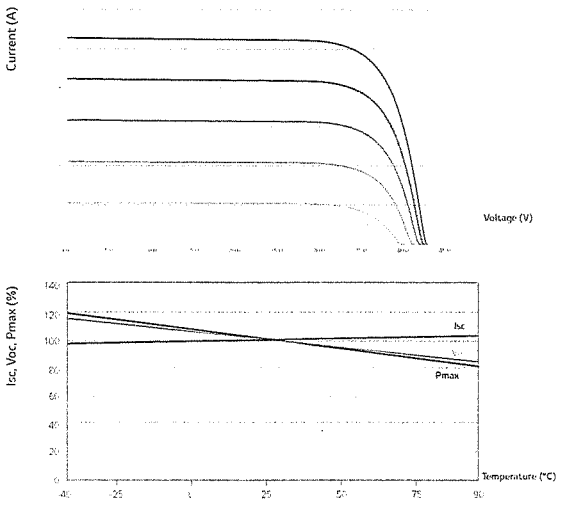
Certifications	IEC 61215, IEC 61730-1/-2
	UL 1703
	IEC 61701 (Salt mist corrosion test)
	IEC 62716 (Ammonia corrosion test)
	ISO 9001
Module Fire Performance	Type 1 (UL 1703)
Fire Rating	Class C(ULC/ORD C1703, IEC 61730)
Product Warranty	25 years
Output Warranty of Pmax	Linear Warranty*

* 1) First 5 years : 95%, 2) After 5th year : 0.4%p annual degradation, 3) 25 years : 87.0%

Temperature Characteristics

NOCT*	[°C]	44 ± 3
Pmax	[%/°C]	-0.300
Voc	[%/°C]	-0.240
Isc	[%/°C]	0.037

Characteristic Curves



Electrical Properties (STC*)

Model		LG365Q1C-A5	LG360Q1C-A5	LG355Q1C-A5	LG350Q1C-A5
Maximum Power (Pmax)	[W]	365	360	355	350
MPP Voltage (Vmpp)	[V]	36.7	36.5	36.3	36.1
MPP Current (Impp)	[A]	9.95	9.87	9.79	9.70
Open Circuit Voltage (Voc)	[V]	42.8	42.7	42.7	42.7
Short Circuit Current (Isc)	[A]	10.80	10.79	10.78	10.77
Module Efficiency	[%]	21.1	20.8	20.6	20.3
Operating Temperature	[°C]	-40 ~ +90			
Maximum System Voltage	[V]	1,000 (UL / IEC)			
Maximum Series Fuse Rating	[A]	20			
Power Tolerance	[%]	0 ~ +3			

The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

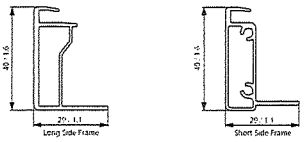
* STC (Standard Test Condition): Irradiance 1000 W/m², Cell Temperature 25 °C, AM 1.5

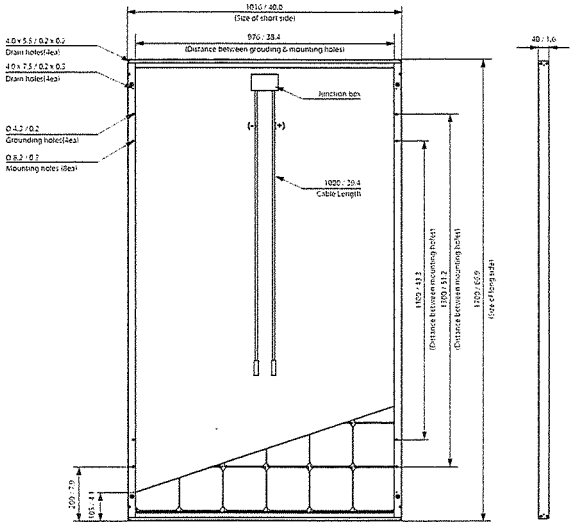
Electrical Properties (NOCT)

Model		LG365Q1C-A5	LG360Q1C-A5	LG355Q1C-A5	LG350Q1C-A5
Maximum Power (Pmax)	[W]	275	271	267	264
MPP Voltage (Vmpp)	[V]	36.6	36.4	36.2	36.0
MPP Current (Impp)	[A]	7.51	7.45	7.39	7.32
Open Circuit Voltage (Voc)	[V]	40.2	40.2	40.2	40.1
Short Circuit Current (Isc)	[A]	8.70	8.69	8.68	8.67

* NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m², ambient temperature 20 °C, wind speed 1 m/s

Dimensions (mm / inch)





* The distance between the center of the mounting/grounding holes

LG Electronics Inc
Solar Business Division
LG Twin Towers, 128 Yeoui-daero, Yeongdeungpo-gu, Seoul
07336, Korea

www.lg-solar.com

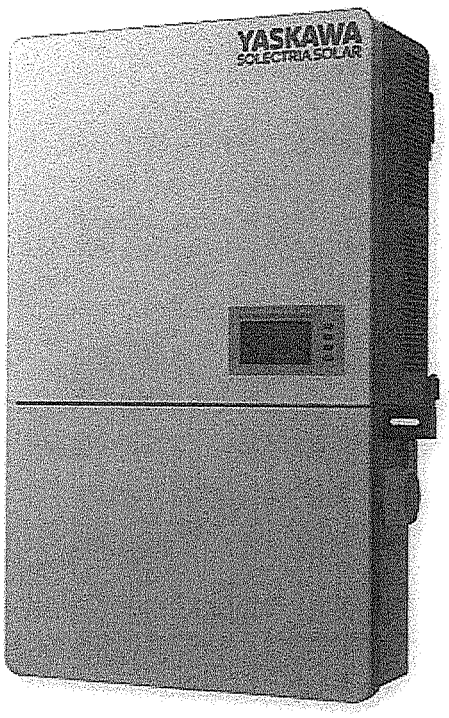
Life's Good

Product specifications are subject to change without notice.
DS-Q1-60-C-G-F-EN-70630

YASKAWA

PVI 50TL & PVI 60TL

3-Ph Transformerless Commercial String Inverters



Features

- Integrated arc fault protection
- Compliant with UL 1741SA
- 3 MPPTs with 5 inputs each
- Integrated DC and AC disconnects
- AC terminals compatible with copper and aluminum conductors
- Modbus communications
- Internal data logger
- 0 - 90° installation orientation
- Remote firmware upgrades
- Remote diagnostics
- Compatible with certain MLPE for module-level rapid shutdown*

Options

- H4 wiring box
- Shade cover
- DC fuse bypass
- Web-based monitoring

Yaskawa Solectria Solar's PVI 50TL and PVI 60TL are grid-tied, transformerless three-phase inverters designed for ground mount, rooftop and carport arrays and can be installed from 0 - 90 degrees. The PVI 50/60TL inverters are the most reliable, efficient and cost effective in their class. They come standard with AC and DC disconnects, three MPPTs, a 15-position string combiner, remote diagnostics, remote firmware upgrades and various protection features. Options include H4 wiring box, shade cover, DC combiner fuse bypass, and web-based monitoring.

SOLECTRIA SOLAR

PVI 50TL & PVI 60TL

Specifications

	PVI 50TL	PVI 60TL
DC Input		
Absolute Maximum Input Voltage	1000 VDC	1000 VDC
Maximum Power Input Voltage Range (MPPT)	480-850 VDC	540-850 VDC
Operating Voltage Range (MPPT)	200-950 VDC	200-950 VDC
Maximum Operating Input Current	108 A (36 A per MPPT)	114 A (38 A per MPPT)
Number of MPP Trackers	3	3
Maximum Available PV Current (Isc x 1.25)	204 A (68 A per MPPT)	204 A (68 A per MPPT)
Maximum PV Power	75 kW (30 kW per MPPT)	90 kW (33 kW per MPPT)
Start Voltage	330 V	330 V
AC Output		
Nominal Output Voltage	480 VAC, 3-Ph/PE/N	480 VAC, 3-Ph/PE/N
AC Voltage Range (Standard)	-12/+10%	-12/+10%
PF=1.00 - Real/Apparent Power/Output Current	50 kW / 50 kVA / 60.2 A	60 kW / 60 kVA / 72.3 A
PF=+/-0.91 - Real/Apparent Power/Output Current	50 kW / 55 kVA / 66.2 A	60 kW / 66 kVA / 79.4 A
Nominal Output Frequency	60 Hz	60 Hz
Output Frequency Range	57-63 Hz	57-63 Hz
Power Factor	Unity, >0.99 (Adjustable 0.8 leading to 0.8 lagging)	Unity, >0.99 (Adjustable 0.8 leading to 0.8 lagging)
Fault Current Contribution (1 Cycle RMS)	55 A	55 A
Total Harmonic Distortion (THD) @ Rated Load	<3%	<3%
Recommended OCPD Device	90 A	100 A
AC Surge Protection	Type II MOV, 1240Vc, 15kA Itm (8/20µ)	
Efficiency		
Peak Efficiency	99.0%	99.0%
CEC Efficiency	98.5%	98.5%
Tare Loss	< 2 W	< 2 W
Integrated String Combiner		
Fused Inputs	15 Fused Positions (5 Positions per MPPT) 15 A Standard (20, 25, 30 A accepted)**	
Temperature		
Ambient Temperature Range	-22°F to +140°F (-30°C to +60°C); Derating occurs over +122°F (+50°C)	
Storage Temperature Range	No low temp minimum to +158°F (+70°C)	
Relative Humidity (non-condensing)	0-95%	
Operating Altitude	13,123 ft (4,000 m) Derating occurs from 9,842.5 ft (3,000 m)	
Communications		
Data Logger Hardware	Standard, Internal	
SolrenView Web-Based Monitoring Service	Optional	
Revenue Grade Metering	Optional, External	
Communication Interface	RS-485 Modbus RTU	
Remote Firmware Upgrades	Standard	
Remote Diagnostics	Standard	
Features & Protections		
Arc-Fault	Standard	
Smart Grid Features	L/HVRT, L/HFRT, Volt-Var, Frequency-Watt and Volt-Watt, Soft-Start, Soft-Step	
Testing & Certifications		
Safety Listings & Certifications	UL 1741SA-2016, UL1699B, CSA-C22.2 #107.1, IEEE1547a-2014	
Advanced Grid Support Functionality	Rule 21, UL 1741SA	
Testing Agency	ETL	
FCC Compliance	FCC Part 15	
Warranty		
Standard and Options	10 year; Options for 15 or 20 years	
Enclosure		
Acoustic Noise Rating	< 60 dBA @ 1 m at room temperature	
AC/DC Disconnect	Standard, fully-integrated	
Mounting Angle***	0-90° from horizontal (vertical, angled, flat)	
Dimensions (H x W x D)	39.4 in. x 23.6 in. x 10.2 in (1,000 mm x 600 mm x 260 mm)	
Weight	Inverter: 123.5 lbs (56 kg); Wiring Box: 33 lbs (15 kg)	
Enclosure Rating and Finish	Type 4X; Polyester Powder Coated Aluminum	

***Please inquire about compatible Module-Level Power Electronics (MLPE)**
****Yaskawa Solectria Solar does not supply optional fuses sizes**
*****Shade cover accessory required for installation of 75° or less**

SOLECTRIA SOLAR

Yaskawa Solectria Solar
360 Merrimack Street
Lawrence, MA 01843
solectria.com

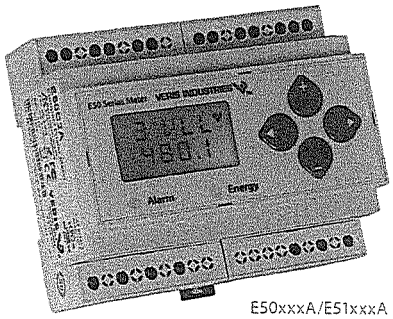
1-978-683-9700
inverters@solectria.com

DOCR-070642-N | August 2018

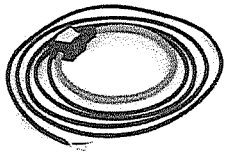
YASKAWA

E5XXXA SERIES

Cost-Saving, Versatile Monitoring Solution with Associated E683x Rope Style CTs (Sold Separately)



E50xxxA/E51xxxA



E683x Series Rope CT (sold separately)

Faster installation

Integrator and power supply for the CTs are built into the meter... fewer devices to purchase and faster installation

0.5% accuracy

ANSI C12.20 0.5% accuracy, IEC 62053-22 Class 0.5S on all E5xxxA...great for cost allocation

Rope CTs

Versatile rope CTs allow convenient installation in tight spaces

Easy installation

DIN rail or screw mounting options

400 to 5000A

Designed to work exclusively with E683x Series rope CTs which offer 1% accuracy from 50 to 5000 A... monitor a wide range of loads with breakers from 400 to 5000 A

Multiple applications

Real energy output and phase loss alarm output on E50BxA and E5xCxA models...one device serves multiple applications

The E5xxxA Series DIN Rail Meter combines exceptional metering performance with a built-in integrator and power supply to deliver a cost-effective, easily installed solution for power monitoring applications. Multiple communication protocol options offer added flexibility for easy system integration.

E5xxxA devices work exclusively with Veris E683x Series rope CTs for fast connection. The rope style CTs allow convenient installation in tight spaces.

The data logging capability (E5xC3A and E5xx5A) protects data in the event of a power or communications failure elsewhere in the system. Different devices in the series offer serial communication, pulse output, and phase alarms to suit a wide variety of applications.

APPLICATIONS

- Energy monitoring in building automation systems
- Renewable energy
- Energy management
- Commercial sub-metering
- Industrial monitoring
- Cost allocation

SPECIFICATIONS

ACCURACY	
Real Power & Energy E5xxxA	0.5% (ANSI C12.20, IEC 62053-22 Class 0.5S)
INPUTS	
Control Power, AC	50/60 Hz; 5 VA max.; 90 V min.; UL Maximums: 600 VL-L (347 VL-N); CE Maximum: 300 VL-N
Control Power, DC	3 W max.; UL and CE: 125 to 300 Vdc (external DC current limiting required)
Voltage Input	UL: 90 VL-N to 600 VL-L; CE: 90 VL-N to 300 VL-N
Current Input Scaling Input Range	50 to 5000 A E683x Series rope style CTs only (CTs must be rated for connection to Class 1 voltage inputs)
Pulse Inputs (E5xHxA & E50FxA only)	Contact inputs to pulse accumulators (one set with E5xH2A & E50F2A; two sets with E5xH5A & E51F5A)*
OUTPUTS	
All Models (except E5xHxA & E50FxA)	Real Energy Pulse: N.O. static**; Alarm contacts: N.C. static**
E50BxA	Reactive energy pulse**
E5xCxA	RS-485 2-wire Modbus RTU (1200 baud to 38.4 kbaud)
E5xHxA	RS-485 2-wire BACnet MS/TP (9600 baud to 115.2 kbaud)
E50FxA	2-wire LON FT
MECHANICAL	
Mounting	DIN rail or 3-point screw mount
ENVIRONMENTAL	
Operating Temp Range	-30 to 70 °C (-22 to 158 °F)
Storage Temp Range	-40 to 85 °C (-40 to 185 °F)
Humidity Range	<95% RH non-condensing; indoor use only
WARRANTY	
Limited Warranty	5 years
AGENCY APPROVALS	
Agency Approvals	UL508, EN61010, California CSI Solar, ANSI C12.20

E51CxA only

E50FxA only

*10 kΩ Vac/dc to 4 to 10 Vdc.
**30 Vac/dc, 100 mA max.
***The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

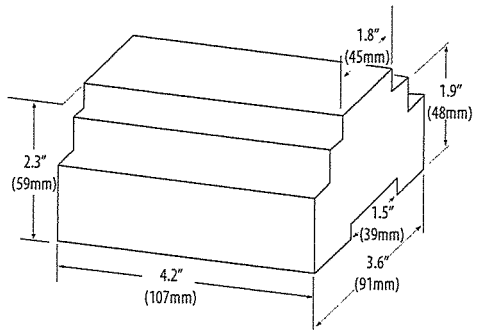
ORDERING INFORMATION

	E50B1A	E50C2A	E50C3A	E50F2A	E50F5A	E50H2A	E50H5A	E51C2A	E51C3A	E51H2A	E51H5A
MEASUREMENT CAPABILITY - FULL DATA SET											
Bi-directional Energy Measurements								•	•	•	•
Power (3-phase total and per phase): Real (kW)Reactive (kVAR), & Apparent (kVA)	•	•	•	•	•	•	•	•	•	•	•
Power Factor: 3-phase average & per phase	•	•	•	•	•	•	•	•	•	•	•
Present Power Demand: Real (kW), Reactive (kVAR), and Apparent (kVA)	•	•	•	•	•	•	•	•	•	•	•
Import & Export totals of Present Power Demand: Real (kW), Reactive (kVAR), & Apparent (kVA)								•	•	•	•
Peak Power Demand: Real (kW), Reactive (kVAR), and Apparent (kVA)	•	•	•	•	•	•	•	•	•	•	•
Current (3-phase average and per phase)	•	•	•	•	•	•	•	•	•	•	•
Voltage: Line-Line and Line-Neutral (3-phase average and per phase)	•	•	•	•	•	•	•	•	•	•	•
Frequency	•	•	•	•	•	•	•	•	•	•	•
ANSI C12.20 0.5% accuracy, IEC 62053-22 Class 0.5S	•	•	•	•	•	•	•	•	•	•	•
Accumulated Net Energy: Real (kWh), Reactive (kVARh), and Apparent (kVAh)	•	•	•	•	•	•	•	•	•	•	•
Accumulated Real Energy by phase (kWh)	•	•	•	•	•	•	•	•	•	•	•
Import and Export Accumulators of Real and Apparent Energy								•	•	•	•
Reactive Energy Accumulators by Quadrant (3-phase total and per phase)								•	•	•	•
Demand Interval Configuration: Fixed or Rolling Block	•	•	•	•	•	•	•	•	•	•	•
Demand Interval Configuration: External Sync to Comms	•	•	•	•	•	•	•	•	•	•	•
DATA LOGGING											
Data Logging: 10 16-Bit Configurable (can include Date/Time) Data Buffers			•						•		
Data Logging: 3 Timestamped 32-Bit Configurable Data Buffers					•		•				•
Store up to 60 days of readings at 15-minute intervals			•		•		•		•		•
OUTPUTS											
Alarm Output (N.C.)	•	•	•	•		•		•	•	•	
1 Pulse Output (N.O.)		•	•					•	•		
2 Pulse Outputs (N.O.)	•										
RS-485 Serial (Modbus RTU Protocol)		•	•					•	•		
RS-485 Serial (BACnet MS/TP Protocol)						•	•			•	•
LON FT Serial (LonTalk Protocol)				•	•						
INPUTS											
2 Pulse Contact Accumulator Inputs					•		•				•
1 Pulse Contact Accumulator Input				•		•				•	

REQUIRED CTS

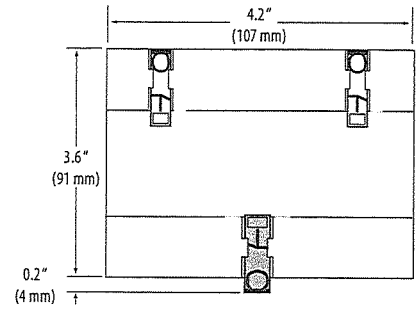
MODEL	DESCRIPTION
E683C502	Rogowski CT, 250 mm (9"), 600 V, 5 kA, U018 equivalent
E683D502	Rogowski CT, 300 mm (12"), 600 V, 5 kA, U018 equivalent
E683G502	Rogowski CT, 460 mm (18"), 600 V, 5 kA, U018 equivalent
E683J502	Rogowski CT, 600 mm (24"), 600 V, 5 kA, U018 equivalent
E683L502	Rogowski CT, 900 mm (35"), 600 V, 5 kA, U018 equivalent

DIMENSIONAL DRAWING



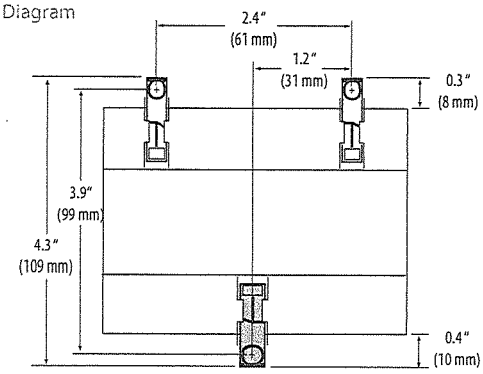
DIN MOUNT CONFIGURATION

Mounting Diagram



SCREW MOUNT CONFIGURATION

Mounting Diagram



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